



---

The Development of the Coastwise Trade of Virginia in the Late Colonial Period

Author(s): David C. Klingaman

Source: *The Virginia Magazine of History and Biography*, Vol. 77, No. 1, Part One (Jan., 1969), pp. 26-45

Published by: [Virginia Historical Society](#)

Stable URL: <http://www.jstor.org/stable/4247452>

Accessed: 13-12-2015 20:40 UTC

---

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



*Virginia Historical Society* is collaborating with JSTOR to digitize, preserve and extend access to *The Virginia Magazine of History and Biography*.

<http://www.jstor.org>

# THE DEVELOPMENT OF THE COASTWISE TRADE OF VIRGINIA IN THE LATE COLONIAL PERIOD

by DAVID C. KLINGAMAN\*

COMPARED to other branches of colonial trade, not much is known about the trade which the American colonies conducted among themselves. Since most of the population was located near the sea and since land transportation was both difficult and costly, most of the intercolonial commerce was probably carried by ships. The published quantitative data on the intercolonial shipping trade is largely confined to the five-year period 1768-1772 and is found in the Colonial Statistics section of the *Historical Statistics of the United States*.<sup>1</sup> Although this source provides useful information concerning the tonnage capacity engaged in coastwise shipping during the 1768-1772 period, it yields no data on such interesting matters as the kinds and quantities of goods traded, the value of each colony's coastwise trade, the identity of each colony's demanders and suppliers, and the growth and development of the coastwise exchange of goods. This more detailed information must be obtained from the Naval Office Lists of each colony.<sup>2</sup> The naval lists generally show the kinds and quantities of goods on board all ships entering or clearing each naval district as well as the origin or destination of those ships. In many cases, the information is sufficient to permit preparation of export and import statistics, especially if some form of averages is used to compensate for the inevitable gaps found in the quarterly reports prepared by the naval officers.

The purpose of this paper is to make available some of the results of a study of the Virginia naval lists aimed at illuminating the role played by Virginia in the trade among the American colonies during the late colonial period. Among the questions which will be raised and for which answers will be suggested are: Who sold Virginia her coastwise imports and who purchased her coastwise exports? What kinds of goods and in what

\* Dr. Klingaman is assistant professor of economics at Ohio University, Athens, Ohio. For helpful comments and suggestions, the author is indebted to Roger L. Ransom. For the use of microfilms of the Public Record Office material cited in footnotes, he is indebted to the Alderman Library of the University of Virginia.

<sup>1</sup> U.S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1957* (Washington, D.C., 1960), pp. 758-760.

<sup>2</sup> Under the head of Board of Trade Papers in the Colonial Office Catalog, Public Record Office, London, the Naval Office Lists cover the trade of the following colonies for the years given: Carolina, 1716-1719, 1721-1735, 1736-1767; Georgia, 1752-1767; Maryland, 1689-1702, 1751-1765; Massachusetts, 1752-1765; New England, 1686-1717; New Hampshire, 1723-1769; New Jersey, 1722-1761; New York, 1715-1765; Virginia, 1697-1706, 1725-1769.

quantities were traded by Virginia? How valuable was this branch of trade? Who owned the ships which carried this commerce? How fast did the coastwise trade of Virginia grow? Estimated, and necessarily approximate, but nonetheless revealing answers to these questions are possible based on a comparative analysis of the Virginia naval lists for the 1760-1769 and 1737-1742 periods.<sup>3</sup>

The naval lists are not complete for every year for any of Virginia's six naval districts. Quite a few of the quarterly reports prepared by the naval officers have been lost and are therefore not available to the researcher. In addition, some of the reports are so defaced or indistinct as to make them useless. These gaps in the naval lists render impossible the preparation of complete export and import data for each year. Extrapolation based on nearby full-year figures seemed inadvisable due to the rather large year-to-year and quarter-to-quarter variations in the quantities of commodities entering and clearing each of the naval districts. The data was therefore calculated in the form of average annual figures based on full-year data for each naval district. The averages obtained were real ones and involved no extrapolation. The unavoidable gaps in the naval lists mean that the number of years for which complete returns are available differ according to naval districts. Thus the actual years selected and the number of the years selected for computing the average annuals varied among the naval districts. The span of time chosen for computing the average annuals toward the end of the colonial period was the ten years 1760-1769. The number of years used in averaging the exports and imports from each naval district varied from four to eight.<sup>4</sup> The only complete year for all six naval districts was 1762. Because there were so many gaps in the naval lists during this period, it was necessary to choose a period of time long enough to include a minimum number of years to average for each naval district. It was felt that a four-year average was the minimum one desirable.

<sup>3</sup> The naval lists underlying trade data for the 1760-1769 period are found in Public Record Office, C.O. 5/1448, C.O. 5/1449, C.O. 5/1450. For the 1737-1742 period, the sources are C.O. 5/1443, C.O. 5/1444, C.O. 5/1445, and C.O. 5/1446. The microfilms of the Virginia naval lists are stored in four places in Virginia: Colonial Williamsburg, Virginia State Library, Virginia Historical Society, and Alderman Library of the University of Virginia. The writer wishes to express his appreciation to Edmund Berkeley, Jr., and others of the staff of the Manuscripts Room of the Alderman Library.

<sup>4</sup> The Upper James figures are eight-year averages: 1760, 1762, 1763, 1764, 1765, 1768, 1769. The York district figures are five-year averages: 1761, 1762, 1764, 1768, 1769.\* The South Potomac figures are four-year averages: 1761, 1762, 1764, 1766. The Accomack figures are five-year averages: 1760, 1762, 1765, 1766, 1768. The Lower James (Hampton) figures are four- or six-year averages: 1760, 1761, 1762, 1763 and often 1765\* and 1766\*. The Rappahannock figures are seven-year averages: 1760, 1761, 1762, 1764, 1765, 1766, 1768. An asterisk denotes that the data is for less than twelve months. All years approximate a calendar year.

The Virginia naval lists extend as far back as the year 1697. Prior to 1737, however, the gaps are so frequent that obtaining averages of full-year figures for the naval districts for any reasonably short span of time is impossible. Not only are the naval lists very incomplete prior to 1737, but often the information they yield is severely limited because though the kinds of goods traded are enumerated, the quantities involved are not. In contrast, immediately after 1736 the data is even more complete than for the period of the 1760's. Over the six-year period 1737-1742, there are no gaps in the naval lists for five of the six naval districts. For the Accomack district, the years used to compute the average annuals were 1731 through 1734 inclusive. The alternative to using this four-year period for Accomack was to jump to 1746 and beyond, a much later period and therefore less useful for the purpose at hand.

In order to convert the average annual quantities of each commodity into values which could be added together, it was necessary to choose a price for each commodity. The main sources for price information were Arthur H. Cole's *Wholesale Commodity Prices in the United States, 1700-1861* (Cambridge, Mass., 1938) and David MacPherson's *Annals of Commerce, Manufactures, Fisheries and Navigation* (London, 1805), Volume III. The latter work is the basis for Table Z76 "Value and Quantity of Articles Exported from British Continental Colonies by Destination: 1770" in *Historical Statistics of the United States*. Unfortunately Cole's fine book includes no data on prices extant in Virginia during this period. The monthly averages for commodity prices in Boston, New York, and Philadelphia were converted to yearly and then to decade averages for the 1760-1769 period. The conversion of monthly averages to yearly averages can involve an error since the commodities priced were exported or imported more heavily in particular months of the year. Ideally these particular monthly prices should be weighted relatively higher in the average annuals. Since monthly quantity data was not available, the calculation of weighted average annual prices was not always feasible. In order to convert these current prices into a common sterling equivalent, the Boston, New York, and Philadelphia prices were deflated by .75, .5625, and .60 respectively. The basis for this deflation into sterling was the valuation placed by each of the three colonies on the Spanish silver dollar vis-à-vis the valuation of that dollar in terms of sterling. Where possible, prevailing exchange rates were checked in order to confirm the deflation factors given above. MacPherson's value figures are not the actual market figures, which he believed to have been higher,

but were the official customhouse values at the ports of exportation. Using the values and quantities given by MacPherson, it was a simple matter to calculate prices for the year 1770. MacPherson's prices were generally lower than those derived from deflating Cole's commodity prices. It was necessary at this point to make some rather arbitrary decisions concerning which set of prices to use. Some of the prices finally chosen mark a compromise between the two sets of prices.

The tables in the appendix provide statistics on several of the major commodities traded by Virginia in the coastwise market. The reader may refer to these tables occasionally when he desires more detail than is presented in the text. Each table includes the price used in valuing the commodity. Should the reader question the price selected, he can easily apply his own price to the quantities given in a particular table.

## I

The demand for Virginia's coastwise exports was confined almost entirely to the five colonies of Massachusetts, New York, Pennsylvania, Rhode Island, and New Hampshire. More specifically, the markets appear to have been the towns of Boston, Salem, New York, Philadelphia, Newport, and the Piscataway or Portsmouth region of New Hampshire. Massachusetts was a deficit region in most foodstuffs during the late colonial period, and during the years 1768-1772 she was a net importer of corn, wheat, flour, and pork.<sup>5</sup> To the towns of Boston and Salem, Virginia sent approximately 39 percent of the average annual value of her coastwise exports. Next in importance came New York, 28 percent; Pennsylvania, 15 percent; Rhode Island, 11 percent; and New Hampshire, 6 percent. Connecticut and New Jersey imported only trivial amounts of commodities from Virginia although Virginia commodities must often have reached those colonies by way of re-exports from New York and other colonial seaports with which Virginia traded.<sup>6</sup> Exports to Maryland and to North and South Carolina were so slight that they can practically be assigned a value of zero.<sup>7</sup>

<sup>5</sup> Max George Schumacher, "The Northern Farmer and his Markets During the Late Colonial Period" (unpublished Ph. D. dissertation, Department of History, University of California), Appendix, Table 1.

<sup>6</sup> Virginia D. Harrington, *The New York Merchant on the Eve of the Revolution* (New York, 1935), pp. 214-215.

<sup>7</sup> Most of the trade between Virginia and North Carolina was probably overland rather than by sea. In substantial part, Norfolk developed as a port for northern North Carolina whose inlets and rivers were too shallow to admit large ships. Beef, pork, hides, tobacco, and naval stores were carried over land to Great Bridge or Suffolk at the head of navigation respectively of the Elizabeth and Nansemond rivers and from there were shipped by flatboat to Norfolk for export. Similarly, imports for northern North Carolina often came by way of Norfolk. There is no way to estimate the importance of this trade, since no records were kept to it (Arthur Pierce Middleton, *The Tobacco Coast* [Newport News, Va., 1953], p. 201).

The average annual value of each major commodity sent to each colony during the 1760-1769 period is presented in Table 1. The bottom row of Table 1 gives the total average annual value of the major coastwise commodity exports sent to each colony by Virginia. The right-hand column gives the total average annual value of each major commodity exported by Virginia to the other North American colonies.

TABLE 1  
ESTIMATED AVERAGE ANNUAL VALUE IN  
POUNDS STERLING OF MAJOR VIRGINIA COASTWISE  
EXPORTS, 1760-1769

	Mass.	N.Y.	Penn.	R.I.	N.H.	Totals
Corn	5,638	1,154	1,149	1,225	1,081	10,247
Wheat	1,680	3,735	1,056	191	77	6,739
Pork	778	423	428	376	200	2,205
Peas and beans	201	343	215	20	13	792
Flour	99	180	29	320	32	660
Tobacco	585	113	47	436	0	1,181
Coal	154	135	45	80	64	478
Oats	142	423	640	17	0	1,222
Totals	9,277	6,506	3,609	2,665	1,497	23,524

Source: P.R.O., C.O. 5/1448, C.O. 5/1449, C.O. 5/1450.

During the 1760's average annual coastwise exports of corn and wheat were approximately 136,000 bushels and 38,500 bushels respectively. Grain products accounted for more than two-thirds of the estimated value of Virginia's coastwise exports during this period. Corn was exported in significant quantities from all six naval districts of Virginia, indicating that it was a popular crop among farmers in nearly all parts of the colony. The wheat growing area was more concentrated. The area comprising the two James River districts supplied approximately 77 percent of the total wheat crop sent to neighboring colonies, compared to 38.4 percent of the corn exports. The climate and soils of the Piedmont region of Virginia were better suited to wheat farming than were those of the Tidewater region. As increasing numbers of settlers pushed westward into the Piedmont region, wheat shipments down the James River increased in volume.

Coastwise exports of corn, wheat, pork, peas and beans, flour, tobacco, coal, and oats comprise the vast majority of total coastwise exports and are included in Table 1. However, the trade was more diverse than Table 1 indicates. Other exports observed were naval stores, iron, flaxseed, hemp, staves, shingles, and lumber. Each of these commodities either was mentioned infrequently in the naval lists or was mentioned fairly often but only in very small quantities. Lumber was mentioned most frequently but not in a manner which permitted quantification. The computation of average annuals for each of these commodities was judged to be infeasible. Taken together, however, all the residual exports would have been a significant portion of total coastwise exports. When prices are taken into consideration, the average annual value of all the residual exports might amount to as much as 3,000 pounds sterling. Total average annual exports were therefore approximately 26,500 pounds sterling.

It is well at this point to ask how important the coastwise exports of Virginia were in comparison to global exports. While data do not exist for a tabulation of the total value of Virginia's export trade in all commodities, some comparisons are possible based on the commodities traded in the coastwise market. It was estimated that the average annual value of Virginia's coastwise exports during the 1760-1769 period was approximately 26,500 pounds sterling. During 1768 the value of Virginia's total tobacco exports was approximately 382,000 pounds sterling.<sup>8</sup> In the same year, the value of her corn shipments to all areas excluding the coastwise market was approximately 42,000 pounds sterling. Wheat shipments in 1768 to all areas outside the coastwise market were worth approximately 23,000 pounds sterling.<sup>9</sup> Clearly these figures indicate a subordinate role for the coastwise market — and by a rather wide margin.

At least in a marginal sense the coastwise demand for Virginia's corn and wheat crop was of considerable significance. For example, in 1768 roughly 20 percent of the total corn and wheat crop exported was sent to the markets of Boston, Salem, New York, Newport, Philadelphia, and Piscataway. In contrast the coastwise demand for tobacco accounted for only a fraction of one percent of total tobacco exports. In the case of pork the percentage of total demand attributable to the coastwise market was approximately 17 percent.

<sup>8</sup> Computed from *Historical Statistics of the United States*, p. 767. The price used was 17 shillings per cwt.

<sup>9</sup> Computed from Customs 16/1 at 1.5 shillings per bushel of corn and at 3.5 shillings per bushel of wheat.

## II

The colonies which supplied Virginia with her coastwise imports were the same as those to whom she sent her exports: Massachusetts, New York, Pennsylvania, Rhode Island, and New Hampshire. Massachusetts and New York each supplied about 30 percent of her total imports. Next came Rhode Island, 19 percent; Pennsylvania, 17 percent, and New Hampshire, 4 percent. The other colonies were of very minor importance to Virginia insofar as the coastwise trade was concerned. Maryland sent small shipments of bread, flour, and iron. North Carolina shipped some naval stores, principally into the Lower James River district (Hampton-Norfolk).

With respect to the Virginia imports, the northern colonies can be thought of as re-exporters and processors of commodities obtained in trade with the West Indies. Rum and refined sugar were the primary commodities processed in the north and then shipped to Virginia. Commodities like molasses, Muscovado sugar, and salt were more purely re-exports. The average annual value of each major commodity imported from each colony by Virginia during the 1760-1769 period is shown in Table 2. The approximate importance of each supplier to Virginia can be observed in the bottom-row totals. The right-hand column yields data on total average annual values for each major commodity imported.

TABLE 2  
ESTIMATED AVERAGE ANNUAL VALUE IN  
POUNDS STERLING OF MAJOR VIRGINIA COASTWISE  
IMPORTS, 1760-1769

	Mass.	N.Y.	Penn.	R.I.	N.H.	Totals
Rum	1,817	706	1,013	668	225	4,429
Molasses	894	541	315	410	148	2,308
Refined Sugar	952	1,873	851	1,540	84	5,300
Brown Sugar	490	1,347	401	285	84	2,607
Salt	203	127	91	15	46	482
Cheese	49	6	8	31	5	99
Fish, Pickled	64	6	3	16	11	100
Fish, Dried	35	1	1	14	23	74
Totals	4,504	4,607	2,683	2,979	626	15,399

Source: P.R.O., C.O. 5/1448, C.O. 5/1449, C.O. 5/1450.

On the whole, the import trade was probably more diverse than was the export trade. The most significant commodities not included in Table 2 are such items as wine, chocolate, tools and implements of various kinds, furniture, fruit, cider, and various "European wares." Aside from the enigmatic category of "European wares," perhaps none of these commodities were as important as even the salt imports. It is unfortunate that nowhere in the naval lists are the articles comprising "European wares" delineated. The term is probably used to cover small miscellaneous bundles of cloth and other manufactured goods which filtered down as re-exports from the northern colonies. The quantity is always left in doubt although "bundles" of such goods were frequently imported.

It is clear from an examination of the naval lists that the commodities included in Table 2 comprise the overwhelming proportion of total coastwise imports. Aside from the "European wares" category, the total value of the residual imports was probably as valuable as the residual exports. With reference to the unknown value of the "European wares" imports, it is probably advisable to increase the estimated value of the residual imports beyond that of the residual exports. Taken together, the value of the commodities not included in Table 2 would probably be about 5,000 pounds sterling. This would place total average annual coastwise imports in the vicinity of 20,400 pounds sterling. The relative importance of the coastwise import trade can be measured approximately by observing what percentage of the demand for particular commodities was met by coastwise imports of those commodities rather than by imports from abroad. The coastwise percentage of total imports of rum, molasses, Muscovado sugar, and refined sugar was approximately 13, 33, 21, and 55 percent respectively in the year 1768.<sup>10</sup>

### III

Historical accounts have generally been unanimous that the coastwise carrying trade was largely in the hands of the American colonists. New England, especially, is known to have been heavily engaged in the carrying trade between the colonies. From ship registration data contained in the naval lists, it is possible to approximate what percentage of the coastwise trade of Virginia was carried in Virginia-owned vessels. One cannot directly equate registration with ownership since registration usually meant the place of sale. However, occasional naval lists show the ownership as well as the registration and from these one can test the assumption that

---

<sup>10</sup> Computed from Customs 16/1 and the Virginia naval lists.

Virginia registration is a good proxy for Virginia ownership; this assumption proved to be a realistic one. In the case of vessels registered to other colonies, registration as a proxy for ownership is generally less satisfactory. Not a negligible proportion of the ships registered to the other colonies were actually owned in Great Britain although by far the majority were American-owned. In the case of vessels registered to places outside of the thirteen colonies, nearly all were also owned there and thus foreign registration is generally a good proxy for foreign ownership.

Table 3 shows the percentage of coastwise ships entering and clearing Virginia ports during the 1760's that were registered to each colony. Foreign registered ships are included in the "Registered Elsewhere" column although most of the ships composing the percentages in that column were registered in the American colonies. The particularly high percentages for New Hampshire can mostly be accounted for by the important role of Massachusetts in the carrying trade of that colony. The evidence in Table 3 is strong confirmation that the colonials monopolized the coastwise carrying trade.

TABLE 3  
PERCENT OF COASTWISE SHIPS ENTERING THE  
CLEARING VIRGINIA PORTS REGISTERED TO  
VARIOUS COLONIES, 1760-1769

	Registered to that Colony	Registered to Virginia	Registered Elsewhere
<b>Import Trade:</b>			
Massachusetts	86.3	8.3	5.4
New York	12.0	77.3	10.7
Pennsylvania	19.1	66.4	14.5
Rhode Island	79.8	12.3	7.9
New Hampshire	81.2	0.0	18.8
<b>Export Trade:</b>			
Massachusetts	80.1	10.5	9.4
New York	12.2	71.8	16.0
Pennsylvania	10.0	81.2	8.8
Rhode Island	72.6	21.9	5.5
New Hampshire	74.3	0.0	25.7

Source: Computed from C.O. 5/1448, C.O. 5/1449 and C.O. 5/1450.

It is not surprising that the registration data confirms New England's strong hold on the coastwise shipping to and from that region. Virginia registered ships accounted for only about 10 percent of the carrying trade with that area of the colonies. The fact that Virginia ships were active in the coastwise trade, however, is indicated by the high proportion of Virginia vessels engaged in trade with the two middle colonies. More than 70 percent of the ships which traded between these two regions were registered in Virginia. As might be expected, Virginia ships carried a slightly higher proportion of the export trade than they did the import trade.

#### IV

There is considerable evidence to indicate that Virginia's coastwise trade was expanding during the late colonial period. On the export side, the evidence is centered especially in the growth of the grain trade and in the emergence of newly-traded commodities. The average annual export data for the 1737-1742 period and for the 1760-1769 period yield some reliable benchmarks which permit an approximate measurement of the growth of the trade over time. Average annual corn exports expanded approximately 3.2 times between 1737-1742 and 1760-1769 while growing from 42,361 bushels to 136,632 bushels. Corn is an important indicator of the expansion of the coastwise trade because it was the leading export earner in both periods. Moreover, it was an ubiquitous product with significant surpluses in all the naval districts of Virginia. Wheat exports displayed a similar rate of growth, increasing from 10,224 bushels to 38,506 bushels or by approximately 3.8 times. The coastwide trade during the colonial period was also becoming more diversified. The evidence shows that between the 1730's and the 1760's there occurred a substantial increase in the number of commodities traded. Coastwise exports of flour, tobacco, coal, and oats were nil in the 1737-1742 period. During the 1760's these four commodities accounted for more than 13 percent of the estimated value of all coastwise exports. In the earlier period exports of iron, flaxseed, and hemp fell into a similar category, but by the 1760's these commodities were mentioned frequently although only in small amounts. The broadening basis for intercolonial trade was made possible by expanding regional specialization and by the emergence of surpluses in a growing economy. In the case of Virginia, it may also reflect a relative shifting of resources from tobacco production to more general and diversified types of farming.

As one might expect, not all of the commodities traded in the 1737-1742 period experienced growth during the remainder of the colonial era. Two such significant commodities were tar and pork. Tar experienced an impressive decline as average annual coastwise exports decreased from approximately 4,400 barrels in 1737-1742 to about 400 barrels in 1760-1769. The tar exports, almost entirely from the Lower James River district, declined due to a severe fall in exports to Massachusetts. Until more evidence is available, one can only speculate about this precipitous drop in Virginia tar exports. Possibly labor resources in Virginia formerly engaged in tar production were shifting into more profitable endeavors such as grain farming. One would need to know if total production of tar declined or if it were only the coastwise market which experienced such a sharp decline. Perhaps the reduction in tar exports reflected increased competition from North Carolina — the major producer of tar in the American colonies. In 1769 total colonial tar shipments to Great Britain were 83,446 barrels with 56,480 barrels coming from North Carolina and 17,804 barrels from Virginia. Virginia, however, was exporting only several hundred barrels of tar coastwise whereas North Carolina averaged about 27,700 barrels annually during the four years 1769-1772.<sup>11</sup> Thus North Carolina had a much larger relative share of the coastwise market than she did of the foreign market. It may be that North Carolina tar was of more uneven quality than that produced in Virginia, enabling the former to compete more effectively in the coastwise market than in the British market where bounties were paid for tar meeting specified standards of quality.<sup>12</sup> Another possibility is that less of the coastwise tar exports of North Carolina were being transshipped through Norfolk in the later period; such a re-routing would show in the export statistics as a decline in Virginia tar exports.

Average annual exports of pork remained about the same, approximately 950 barrels during the 1730's and the 1760's. As was true for tar, it was mainly the decline in shipments to Massachusetts which accounted for this lack of growth. Until a greater volume of statistics is available for the colonial period, including statistics on the coastwise trade of the other colonies, the reason for this leveling off in pork exports will remain un-

<sup>11</sup> Computed from Customs 16/1. This source only provides information for the 1768-1772 period.

<sup>12</sup> Charles Christopher Crittenden, *The Commerce of North Carolina, 1763-1789* (New Haven, 1936), pp. 57-58. There were numerous complaints concerning the quality of North Carolina naval stores. It is not clear, however, that they were of significantly lower quality than those produced in Virginia.

known. It may be that the strong demand for pork in the West Indies was absorbing most of Virginia's increased surplus. Possibly the deficit pork area in New England was obtaining more of its supply from the middle colonies so that the natural growth in demand was diverted from Virginia. Another possible explanation might be that Virginia farmers were finding it more profitable to sell the corn rather than feed it and sell the hogs although the extent of the practice of feeding corn to hogs during this time is unclear.

When the value of the export commodities which increased during the interval between the two periods is offset against the value of the commodities which decreased, the results show a substantial growth in the export trade. The combined estimated average annual value of wheat, corn, tar, peas and beans, and pork exports in the 1737-1742 period was 8,998 pounds sterling.<sup>13</sup> In the 1760-1769 period, these same commodities had an estimated average annual value of 20,121 pounds sterling. This excludes, of course, the value of the new commodities which entered the coastwise trade subsequent to the 1737-1742 period.

## V

A pronounced change occurred in the direction of the export trade of Virginia during the late colonial period. There was a sharp rise in the demand for her exports by the colonies of New York, Pennsylvania, and Rhode Island. Both absolutely and relatively to Massachusetts, these three colonies were minimal markets for Virginia commodities during the 1730's. Within three decades, however, they were absorbing approximately one half of her coastwise exports — and this occurred on a greatly increased volume. Since Virginia ships were the main carriers in the trade with New York and Pennsylvania, this new commerce must also have stimulated the maritime sector of the economy. The relative shift away from reliance on the Massachusetts market can be observed in the major export items of corn and wheat. During the 1737-1742 period, corn exports to the three colonies of New York, Pennsylvania, and Rhode Island appear to have been in an embryonic stage, and during the interval between the two periods they grew from a mere 1,647 bushels to more than 47,000 bushels annually. This market switch is even more pronounced in the case of wheat. The expansion of wheat exports between the two periods resulted mainly from higher shipments to New York and Pennsylvania, especially

<sup>13</sup> The valuation is based on the same prices used in the 1760-1769 period; this gives a weighted average of quantity relatives.

the former. Average annual exports to New York and Pennsylvania expanded from a trivial 158 bushels in 1737-1742 to approximately 27,400 bushels in the 1760-1769 period. Average annual exports of wheat to Massachusetts actually declined slightly over the period.

Even in the 1760's, however, Massachusetts remained Virginia's most important coastwise customer, taking roughly 39 percent of her total coastwise exports. There is no question, however, that the growth in exports to Massachusetts during the late colonial period was slow compared to the growth in exports to New York, Pennsylvania, and Rhode Island. If it is true that the population of Boston was stagnant or grew very slowly, this could explain in part the relative decline in demand by Massachusetts.<sup>14</sup> Even then, however, corn exports to Massachusetts increased about 2.2 times over the interval between the two periods. In large part, of course, the relative decline in the market role for Massachusetts was simply the result of greatly increased exports to other colonies.

The development of the import sector was similar to that experienced by the export sector. In general there occurred a relatively declining role for Massachusetts as the tempo of trade with the other northern colonies quickened. There was a substantial growth in the volume of imports which involved the emergence of important new suppliers and commodities. During the 1737-1742 period, rum was by far the major commodity imported. In value terms, it was more important than the combined value of molasses, sugar, and salt imports. Between 1737-1742 and 1760-1769, average annual imports of rum increased from approximately 26,900 gallons to 59,000 gallons or by about 2.2 times. By the 1760's, however, rum imports had declined in relative importance although rum still accounted for about 22 percent of the estimated value of total coastwise imports. Over the same period, molasses imports increased from about 16,700 gallons to 40,100 gallons or approximately 2.4 times. In value terms, molasses accounted for 11.3 percent of the estimated value of total coastwise imports during the 1760's. Like rum, its relative importance in the import trade had declined. Refined sugar imports in the 1737-1742 period were a

<sup>14</sup> Carl Bridenbaugh in *Cities in Revolt: Urban Life in America, 1743-1776* (New York, 1955), p. 5, gives citations which show the population of Boston was not increasing between 1743 and 1760. Evarts B. Greene and Virginia D. Harrington in *American Population Before the Federal Census of 1790* (New York, 1932, p. 22) cite a population figure for Boston in 1765 which is slightly less than Bridenbaugh's citation for the population of Boston in 1743. (This source gives a population for Boston in 1765 of 15,520 inhabitants.) The only source that the writer found which credits Boston with a significantly higher population is Lawrence Henry Gipson, *The Coming of the Revolution, 1763-1775* (New York, 1954), p. 11. Gipson estimates the population of Boston in 1763 at 22,000 persons.

negligible 18 hundredweight annually. In succeeding years there occurred an explosive growth in imports of that commodity as average annual imports grew to 1,514 hundredweight. Brown sugar imports also grew rapidly, rising from only 212 hundredweight in 1737-1742 to 1,738 hundredweight in 1760-1769. It was this remarkable growth in sugar imports which gives the aggregate coastwise import trade the appearance of vigorous growth during the late colonial period.

The total estimated average annual value of rum, molasses, sugar, and salt imports during 1737-1742 was 3,653 pounds sterling when 1760-1769 prices are used. In the 1760-1769 period, the value of these same commodities amounted to 15,126 pounds sterling. Clearly there was a pronounced growth in the import trade. This growth was accompanied by a sharp relative shift away from imports from Massachusetts and toward imports from New York, Pennsylvania, and Rhode Island. Imports from New York grew the fastest and those from Massachusetts the slowest. In the 1737-1742 period, Massachusetts supplied most of Virginia's coastwise imports. By the 1760's, however, the commodities imported from New York, Pennsylvania, and Rhode Island accounted for roughly two-thirds of the estimated value of total coastwise imports. The relative shift away from Massachusetts can be observed in the major items of rum and molasses. Between 1737-1742 and 1760-1769, that colony's share of the Virginia rum and molasses market fell from 71 percent to 41 percent for rum and from 47 percent to 39 percent for molasses. But it was sugar which catapulted the middle colonies into the role of important suppliers to the Virginia market. Imports of refined sugar by Virginia from her neighboring colonies were more and more substituting for imports from abroad. By the end of the period studied, about one half of Virginia's refined sugar imports were coming from the northern colonies while the remainder was being imported from Great Britain.<sup>15</sup> Subsequent to the 1730's, New York in particular developed a sizeable sugar refining capacity, and by 1768 there were reportedly six sugar refineries in that city.<sup>16</sup>

Too little is known to explain the sharp increase in trade with the middle colonies which occurred between 1737-1742 and 1760-1769. It should be kept in mind that the volume of the export and import trade between Virginia and the middle colonies was not large in absolute terms even though its percentage growth was. This is particularly true for her grain exports to the

<sup>15</sup> See Table 2. Customs 16/1 verifies that Great Britain was the alternative source of supply for refined sugar.

<sup>16</sup> Harrington, *The New York Merchant*, p. 147.

middle colonies. The increase in trade with New York was especially great and involved primarily an exchange of grain exports for sugar imports. The refined sugar imports were substituting for such imports from Great Britain, but Virginia's grain exports were probably being re-exported since New York was a large net exporter of grain to the West Indies, southern Europe, and the wine islands. This leads one to question why it was profitable to ship grain to New York rather than export it directly to the overseas market. It should be borne in mind that the institutions of foreign trade were much less developed in this period than was the case later. The poor communication in this early period intensified the need to rely on relatives, friends, and other personal contacts who could be trusted to carry out instructions in the context of changing commercial circumstances. The middle colonies depended on multilateral trade much more than did Virginia. Virginia obtained the necessary British manufactured goods directly in a bilateral exchange of tobacco for such goods. In contrast, the bulk of the exports of the middle colonies consisted of foodstuffs which were not in demand in Great Britain.<sup>17</sup> In large part, the British manufactured goods required by the rapidly expanding population in the middle colonies had to be financed from the proceeds of trade with other world areas. It seems likely that the marketing facilities in the middle colonies were better developed so that entrepôts like Philadelphia and New York were efficient marketing channels for Virginia grain exports. In certain situations for some planters, selling grain in the towns of Philadelphia and New York may have been the most efficient way of dealing with the market. Until more is known about the structure of intercolonial markets, there is little use in speculating further on this particular phenomenon.

## VI

The data suggests that the trade among the American colonies was flourishing in the last decades before the Revolution. At least in Virginia the measured pace of this expansion was exceptional. When the tabulated exports and imports in 1737-1742 are summed and compared with those in 1760-1769, the average annual value of the coastwise trade of Virginia expanded from 12,651 pounds sterling to 38,923 pounds sterling.<sup>18</sup> This excludes some residual exports and imports in both periods although this exclusion would probably not distort the observed rate of trade expansion

<sup>17</sup> It was not until after 1767 that Great Britain permitted importation of grain free of duty for limited periods (Harrington, *The New York Merchant*, p. 162).

<sup>18</sup> This is a weighted average of quantity relatives using 1768-1772 prices.

by much. If anything, the rate of growth would tend to be understated since the range of residual commodities was broader during the later period. The increase in the value of the coastwise trade of 3.1 times amounts to an average annual growth rate over the roughly twenty-five-year period of 4.6 percent. The average annual value of the exports rose by 2.6 times compared to a rise of 4.2 times for the imports. The faster growth of imports can be largely attributed to the surge of sugar imports which occurred during the period.

It is worth observing that the rate of growth of the coastwise trade surpassed that experienced by the population during approximately the same period of time. This would mean that average per capita earnings deriving from the coastwise trade were increasing. The growth of the population of Virginia between 1740 and 1765 was approximately 2.2 times or an average annual rate of increase of 3.2 percent.<sup>19</sup> The difference between the rates of growth of the coastwise trade and population was 1.4 percent. This difference involves an average annual rate of growth of the coastwise trade which was about 44 percent faster than that of the population.

---

<sup>19</sup> Computed from *Historical Statistics of the United States*, p. 756. The whole population of Virginia grew from 180,440 in 1740 to 394,000 in 1765.

TABLE 4

AVERAGE ANNUAL CORN EXPORTS TO FIVE COLONIES BY  
VIRGINIA NAVAL DISTRICTS, 1760-1769  
(Bushels)

Naval District	Mass.	N.Y.	Penn.	R.I.	N.H.	Naval District Totals	Naval District Percent of Total
Upper James	23,095	4,291	466	1,755	4,048	33,655	24.6
York	14,692	1,132	790	2,958	1,799	21,371	15.6
South Potomac	5,545	0	109	0	0	5,654	4.1
Accomack	14,201	6,290	10,322	4,296	4,888	39,997	29.3
Lower James	6,166	3,526	2,303	3,133	3,678	18,806	13.8
Rappahannock	11,480	150	1,326	4,193	0	17,149	12.6
Colony Totals	75,179	15,389	15,316	16,335	14,413	136,632	
Colony Percent of Total	55.0	11.3	11.2	12.0	10.6		

Average annual value at 1.5 shillings per bushel: 10,247 pounds sterling.

TABLE 5

AVERAGE ANNUAL WHEAT EXPORTS TO FIVE COLONIES BY  
VIRGINIA NAVAL DISTRICTS, 1760-1769  
(Bushels)

Naval District	Mass.	N.Y.	Penn.	R.I.	N.H.	Naval District Totals	Naval District Percent of Total
Upper James	7,229	8,780	2,942	73	349	19,373	50.3
York	796	346	8	20	70	1,240	3.2
South Potomac	116	116	85	0	0	317	0.8
Accomack	982	1,894	2,023	664	15	5,578	14.5
Lower James	195	10,092	214	0	3	10,504	27.3
Rappahannock	283	113	763	335	0	1,494	3.9
Colony Totals	9,601	21,341	6,035	1,092	437	38,506	
Colony Percent of Total	24.9	55.4	15.7	2.8	1.1		

Average annual value at 3.5 shillings per barrel: 6,739 pounds sterling.

TABLE 6

AVERAGE ANNUAL PORK EXPORTS TO FIVE COLONIES BY  
VIRGINIA NAVAL DISTRICTS, 1760-1769  
(Barrels)

Naval District	Mass.	N.Y.	Penn.	R.I.	N.H.	Naval District Totals	Naval District Percent of Total
Upper James	128	18	1	9	46	202	21.5
York	6	1	1	26	0	34	3.6
South Potomac	6	0	0	0	0	6	0.6
Accomack	5	6	14	5	12	42	4.5
Lower James	180	155	166	120	27	648	69.1
Rappahannock	6	0	0	0	0	6	0.6
Colony Totals	331	180	182	160	85	938	
Colony Percent of Total	35.3	19.2	19.4	17.0	9.1		

Average annual value at 47 shillings per barrel: 2,205 pounds sterling.

TABLE 7

AVERAGE ANNUAL RUM IMPORTS FROM FIVE COLONIES BY  
VIRGINIA NAVAL DISTRICTS, 1760-1769  
(Gallons)

Naval District	Mass.	N.Y.	Penn.	R.I.	N.H.	Naval District Totals	Naval District Percent of Total
Upper James	9,714	1,331	1,047	1,086	1,761	14,939	25.3
York	4,249	475	300	625	372	6,021	10.2
South Potomac	924	871	1,650	1,122	0	4,567	7.7
Accomack	2,409	390	993	859	80	4,731	8.0
Lower James	2,805	6,300	7,833	2,572	783	20,293	34.5
Rappahannock	4,120	43	1,690	2,647	0	8,500	14.5
Colony Totals	24,221	9,410	13,513	8,911	2,996	59,051	
Colony Percent of Total	41.0	15.9	22.9	15.1	5.1		

Average annual value at 1.5 shillings per gallon: 4,429 pounds sterling.

TABLE 8

AVERAGE ANNUAL MOLASSES IMPORTS FROM FIVE COLONIES BY  
VIRGINIA NAVAL DISTRICTS, 1760-1769  
(Gallons)

Naval District	Mass.	N.Y.	Penn.	R.I.	N.H.	Naval District Totals	Naval District Percent of Total
Upper James	4,264	750	333	589	1,017	6,953	17.3
York	3,348	468	0	325	723	4,864	12.1
South Potomac	949	63	400	683	0	2,095	5.2
Accomack	1,385	600	446	676	280	3,387	8.4
Lower James	2,967	7,533	3,900	3,022	550	17,972	44.8
Rappahannock	2,641	0	407	1,835	0	4,883	12.2
Colony Totals	15,554	9,414	5,486	7,130	2,570	40,154	
Colony Percent of Total	38.7	23.4	13.7	17.8	6.4		

Average annual value at 1.15 shillings per gallon: 2,308 pounds sterling.

TABLE 9

AVERAGE ANNUAL REFINED SUGAR IMPORTS FROM FIVE  
COLONIES BY VIRGINIA NAVAL DISTRICTS, 1760-1769  
(Hundredweight)

Naval District	Mass.	N.Y.	Penn.	R.I.	N.H.	Naval District Totals	Naval District Percent of Total
Upper James	177	221	11	417	17	843	55.7
York	16	181	0	0	0	197	13.0
South Potomac	19	36	36	7	0	98	6.5
Accomack	34	25	43	2	6	110	7.3
Lower James	7	68	125	1	1	202	13.3
Rappahannock	19	4	28	13	0	64	4.2
Colony Totals	272	535	243	440	24	1,514	
Colony Percent of Total	18.0	35.3	16.0	29.1	1.6		

Average annual value at 70 shillings per hundredweight: 5,300 pounds sterling.

TABLE 10  
 AVERAGE ANNUAL BROWN SUGAR IMPORTS FROM FIVE  
 COLONIES BY VIRGINIA NAVAL DISTRICTS, 1760-1769  
 (Hundredweight)

Naval District	Mass.	N.Y.	Penn.	R.I.	N.H.	Naval District Totals	Naval District Percent of Total
Upper James	90	73	9	16	24	212	12.2
York	50	24	3	0	3	80	4.6
South Potomac	8	0	28	0	0	36	2.1
Accomack	19	23	2	51	1	96	5.5
Lower James	72	769	203	82	28	1,154	66.4
Rappahannock	88	9	22	41	0	160	9.2
Colony Totals	327	898	267	190	56	1,738	
Colony Percent of Total	18.8	51.7	15.4	10.9	3.2		

Average annual value at 30 shillings per hundredweight: 2,607 pounds sterling.